

What is Data?

And why make it open?

data

noun [U, + sing/pl verb] • UK  /'deɪ.tə/ US  /'deɪ.tə/

★ **B2** information, especially facts or numbers, collected to be examined and considered and used to help decision-making, or information in an electronic form that can be stored and used by a computer:



Our Government collects huge amounts of information to help deliver services to its citizens (thats you!)

This information (or data) is used to make decisions about how to provide day-to-day services (how many teachers are needed for your school) as well as helping with planning for future services (where is the best place to open a new hospital)

In Northern Ireland, the Government has committed to releasing their information and making it "open".

“Open data can be freely used, modified and shared by anyone for any purpose”

OpenDataNI is Northern Ireland’s ‘one stop shop’ for public sector open data. You can find data from government departments, for free, and re-use it without any restriction.

New government releases of open data are happening all the time.

Just go to [OpenDataNI](https://opendata.ni.gov.uk/) to find out more!

You can browse by one of our 9 themes:



You can also search for a keyword e.g. road, school, pollution etc. in the 'search our data' box in the top right hand corner.

Or you can look through all of the datasets by clicking on the Datasets menu, or by viewing them by their Publisher.



Here are some examples of the 290+ datasets available on the OpenDataNI Website:



So here's the challenge we have set:

For you & your team to take at least 1 of the datasets (or use more than 1) in order to create a visualization to help others better understand the data.

To enter the competition you just need to submit an idea. Winning entries will then work with the team in FabLabs to help take this idea and make something from it!

FabLabs use a range of digital fabrication techniques including 3D printing, laser cutting, milling and electronics.

You can also have a look at the existing [Showcases](#) on the portal, this is where we highlight and promote any app/article/website or visual representation of open data that users of the data have created.

Have a look at the examples of the FabLabs work below for inspiration



FabLab Belfast

FabLab came into life as an outreach project from the prestigious Massachusetts Institute of Technology (MIT) Centre for Bits and Atoms (CBA), and has spread its reach wide from inner city Boston to rural India, from South Africa to all over Europe.

In 2012, the Ashton Community Trust established a FabLab in Belfast (New Lodge) funded by the EU SEUPB Peace III Programme, and set up by Prof Neil Gershenfeld, professor at MIT and the director of CBA who supported with equipment kit-out and staff training.

The Fab Lab project has been, and continues to be, a highly successful programme that has attracted interest locally, nationally and internationally for the unique contribution it has made to the promotion of STEM activities for peace building and community development, integrating digital fabrication technology, creative technology and innovative practice.

From inception, FabLab Belfast have built an experienced team of design experts with deep expertise across all aspects of product design and development, from ideation and UX, to prototyping and manufacturing at scale having worked with companies such as MIT, Intel and NESTA.

FabLab Belfast is a fully serviced fabrication workshop equipped with state of the art computer controlled machinery that includes 3D printers, laser cutters, CNC router, full electronics station and a large scale vinyl cutter. Using Open Source software, users can design and make almost anything.

FabLab provides a new and innovative pathway to skills development and personal & community empowerment that directly meets the needs of the community. These interventions have been built upon tried and tested principles of collaborative working and knowledge development, helping to develop a sense of active participation based on good relations and a sense of change.



FABLAB

NERVE CENTRE

FabLab Nerve Centre

The Nerve Centre is Northern Ireland's leading creative media arts centre. More than 120,000 people a year benefit from the Nerve Centre's wide-ranging programme of arts events, cutting edge projects, creative learning centres, training opportunities, and state-of-the-art production facilities. A successful social economy enterprise, the Nerve Centre employs more than 40 staff at sites in Derry~Londonderry and Belfast.

Initially funded by the EU Peace Programme, the FabLab based in Nerve Centre is a place where anyone can come in and use a range of equipment including 3D Printers, Laser Cutters and Milling Machines to make practically anything.

Whether it is a group of students looking to create a new bike shed for their school, or an inventor needing to 3D Print components to develop a proof of concept, the FabLab is there to provide support and guidance.

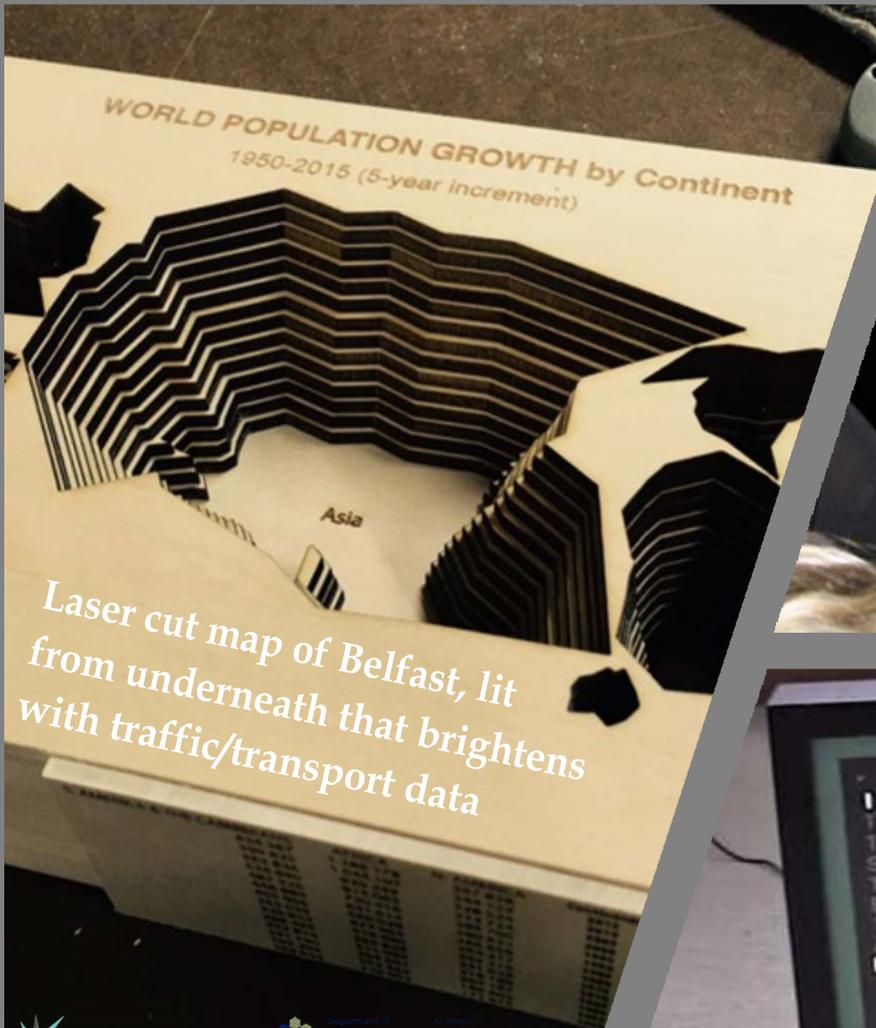
FabLab fabrication work

The following pages show some examples of previous FabLab creations.... giving a small flavour of what is achievable, and hopefully getting you thinking about how you could potentially present data in an innovative and compelling way.

For much, much more information on FabLabs, their website www.fablabni.com can provide you with details on what they do, where they are, etc..



Interactive wall showing simple statistics that can be touched and interacted with



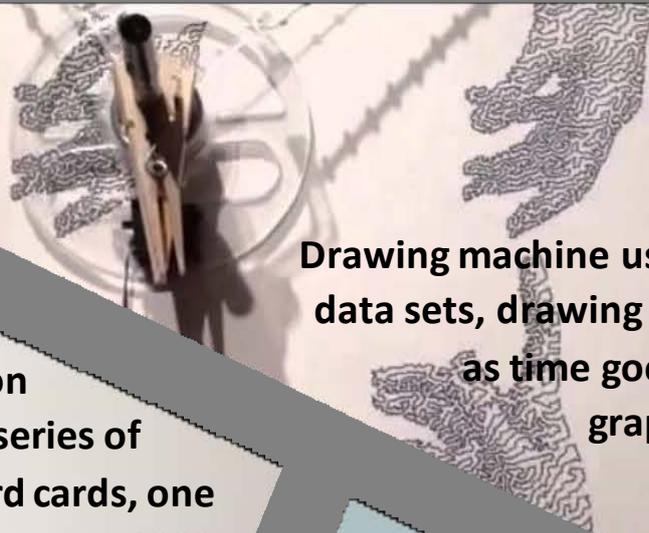
Laser cut map of Belfast, lit from underneath that brightens with traffic/transport data



Simple Carved map using topographic data with information projected onto it interacting with the user

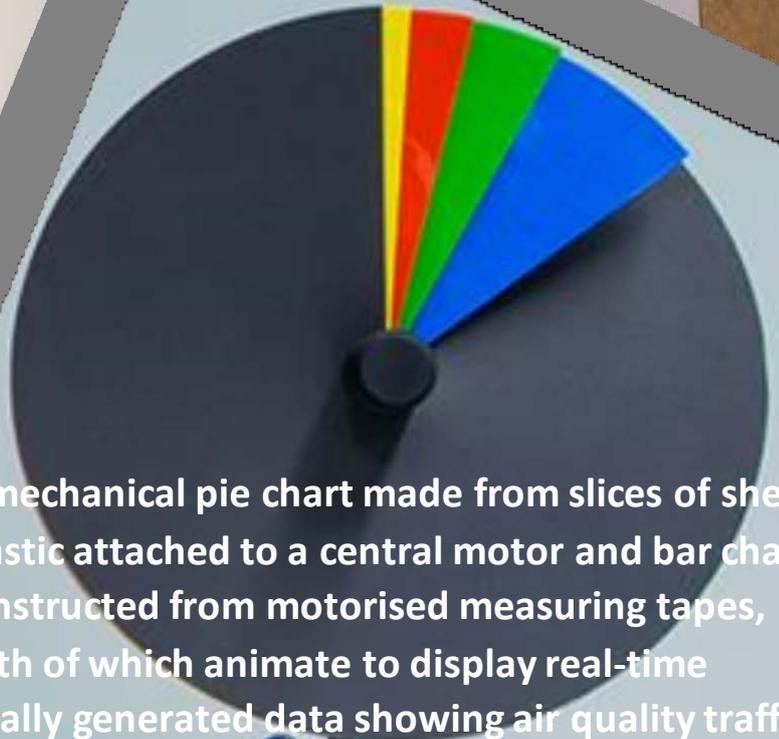


World clock linked to a data set that changes words with different values



Drawing machine using live or existing data sets, drawing or plotting a graph as time goes to show images, graphics and symbols.

A data visualisation produced using a series of laser-cut cardboard cards, one for each month between 1992 and 2010, which vary in length according to the articles from *The New York Times* from 1992 - 2010 about, or related to Ireland. The size of the card represents the numbers of articles from that month. The people and topics mentioned in the articles are etched on each card.



A mechanical pie chart made from slices of sheet plastic attached to a central motor and bar chart constructed from motorised measuring tapes, both of which animate to display real-time locally generated data showing air quality traffic.



Can We Keep Up is a physical data visualisation that investigates the domestic need for water in cities all over the world, created from compressed cellulose sponges cut out in the shape of individual countries as an infographic representation to show the level of Urban water usage.